



Hoover Dam
on the
Colorado River

2020 Water Quality Report



TRABUCO CANYON
WATER DISTRICT

Your 2020 Water Quality Report

Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. **This year's report covers calendar year 2019 drinking water quality testing and reporting.** Trabuco Canyon Water District (TCWD) vigilantly safeguards its water supply and, as in years past, the water delivered to your home meets the quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board, Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards.

TCWD and other regional water suppliers frequently go beyond what is required by testing for unregulated chemicals that may have known health risks but do not have drinking water standards. Unregulated chemical monitoring helps USEPA and DDW determine where certain

chemicals occur and whether new standards need to be established for those chemicals to protect public health.

Through drinking water quality testing programs carried out by TCWD, your drinking water is constantly monitored from source to tap for constituents that are both regulated and unregulated. The State allows water agencies to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than one year old.



The Quality of Your Water Is Our Primary Concern

Sources of Supply

TCWD has a variety of water supply sources, including imported wholesale water, imported treated surface water, and local ground water. Primarily, TCWD's Dimension Water Treatment Plant treats imported wholesale surface water from the Colorado River. In addition, TCWD also receives imported treated surface water from Metropolitan Water District of Southern California (MWDSC) or from the newly commissioned Baker Water Treatment Plant, which utilizes surface water from both MWDSC and from the Santiago Reservoir (Irvine Lake). MWDSC's imported water sources are the Colorado River and the State Water Project, which draws water from the Sacramento-San Joaquin River Delta. Treated local groundwater comes from TCWD's Trabuco Creek Wells Facility.



Basic Information About Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the layers of the ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

Contaminants that may be present in source water include:

- ◆ **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- ◆ **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- ◆ **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- ◆ **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application and septic systems.
- ◆ **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production or mining activities.

In order to ensure that tap water is safe to drink, USEPA and the DDW prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Disinfectants and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (ground-water well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

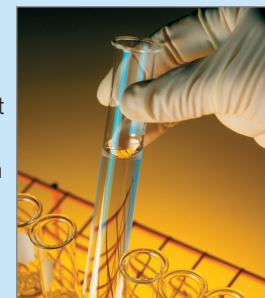
Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average.

Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule.

Stage 2 of the regulation was finalized by USEPA in 2006, which further controls allowable levels of DBPs in drinking water without compromising disinfection itself. A required distribution system evaluation was completed in 2008 and a Stage 2 monitoring plan has been approved by DDW. Full Stage 2 compliance began in 2012.

Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.



Questions about your water? Contact us for answers. For information about this report, or your water quality in general, please contact Fernando Paludi, General Manager, at (949) 858-0277. The TCWD Board of Directors meets the third Wednesday of each month at 7:00 p.m. at the TCWD's Administration Building located at 32003 Dove Canyon Dr., Trabuco Canyon, CA 92679. The public is encouraged to attend.

For more information about the health effects of the listed contaminants in the following tables, call the USEPA hotline at (800) 426-4791. TCWD encourages its customers to visit our website at www.tcwd.ca.gov.

Contaminants Not Detected

TCWD safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In some cases, TCWD goes beyond what is required to monitor for additional contaminants that have known health risks. The contaminants listed here, specifically including Chromium and MTBE, were NOT DETECTED in TCWD's water during the most recent sampling dates.

1,1,1-Trichloroethane	1,2-Dichloropropane	Beryllium	cis-1,3-Dichloropropene	Methylene chloride	Toulene
1,1,2,2-Tetrachloroethane	1,3,5-Trimethylbenzene	Bromobenzene	Cyanide	n-Butylbenzene	Total Coliform Bacteria
1,1,2-Trichloroethane	1,3-Dichlorobenzene	Bromochloromethane	Diazinon	Naphthalene	trans-1,2-Dichloroethene
1,1-Dichloroethane	1,3-Dichloropropane	Bromomethane	Dibromomethane	Nickel	trans-1,3-Dichloropropene
1,1-Dichloroethene	1,4-Dichlorobenzene	Cadmium	Dimethoate	Nitrogen Phosphorous	Trichloroethene
1,2,3-Trichlorobenzene	1-Phenylpropane	Carbon Tetrachloride	Dichlorofluoromethane	Pesticides	Trichlorofluoromethane
1,2,3-Trichloropropane	2,2-Dichloropropane	Chlorobenzene	Ethyl benzene	Simazine	Trichlorotrifluoroethane
1,2,4-Trichlorobenzene	2-Chlorotoluene	Chloroethane	Fecal Coliform & E.Coli	Styrene	Vinyl Chloride
1,2,4-Trimethylbenzene	4-Chlorotoluene	Chloromethane	Isopropylbenzene	Tetrachloroethene	Xylenes
1,2-Dichlorobenzene	Atrazine	Chromium	Mercury	Thallium	
1,2-Dichloroethane	Benzene	cis-1,2-Dichloroethene	Methyl-t-butyl ether	Thiobencarb	

Important Information the EPA Would Like You to Know

Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945. Of the 50 largest cities in the U.S., 43 fluoridate their drinking water. In December 2007, MWDSC joined a majority of the nation's public water suppliers in adding fluoride to drinking water in order to prevent tooth decay. MWDSC was in compliance with all provisions of the State's fluoridation system requirements. TCWD's treated water is not supplemented with fluoride. Fluoride levels in drinking water are limited under California state regulations at a maximum dosage of 2 parts per million.

Additional information about the fluoridation of drinking water is available on these websites:

U.S. Centers for Disease Control and Prevention
www.cdc.gov/fluoridation/

**State Water Resources Control Board,
Division of Drinking Water**
[www.waterboards.ca.gov/drinking_water/
certlic/drinkingwater/Fluoridation.html](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html)

For more information about MWDSC's program, please contact Edgar G. Dymally at (213) 217-5709, or edymally@mwdh2o.com.



Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. MWDSC tested their source water and treated surface water for *Cryptosporidium* in 2019 but did not detect it. If it ever is detected, *Cryptosporidium* is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from USEPA's Safe Drinking Water hotline at (800) 426-4791, or on the web at www.epa.gov/safewater.

2019 Metropolitan Water District of Southern California Treated Surface Water

Chemical	MCL	PHG	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Inorganic Chemicals – Tested in 2019						
Aluminum (ppm)	1	0.6	0.124	ND – 0.065	No	Treatment Process Residue, Natural Deposits
Bromate (ppb)	10	0.1	2	ND – 5.9	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm)	2	1	0.7	0.1 – 0.9	No	Water Additive for Dental Health
Nitrate as N (ppm)	10	10	0.5	0.5	No	Fertilizers, Septic Tanks, Natural Deposits
Secondary Standards* – Tested in 2019						
Aluminum (ppb)	200*	600	124	ND – 65	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	56	53 – 58	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	ND	ND – 1	No	Naturally-occurring Organic Materials
Odor (threshold odor number)	3*	n/a	ND	ND – 1	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	514	508 – 521	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	91	89 – 93	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	304	296 – 312	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals – Tested in 2019						
Alkalinity, total as CaCO ₃ (ppm)	Not Regulated	n/a	72	69 – 74	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.12	0.12	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	30	29 – 30	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO ₃ (ppm)	Not Regulated	n/a	127	124 – 130	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	7.4	7.3 – 7.6	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	14	13 – 14	n/a	Runoff or Leaching from Natural Deposits
Perfluorohexanoic Acid (ppt)	Not Regulated	n/a	2.3	2.2 – 2.3	n/a	Industrial Discharge
pH (pH units)	Not Regulated	n/a	8.4	8.4 – 8.5	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	2.8	2.6 – 2.9	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	56	54 – 57	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	1.8 – 2.6	n/a	Various Natural and Man-made Sources

ppb = parts per billion; ppm = parts per million; ppt = parts per trillion; µmho/cm = micromhos per centimeter; ND = not detected; TT = treatment technique
MCL = Maximum Contaminant Level; PHG = California Public Health Goal; NL = Notification Level; n/a = not applicable

*Chemical is regulated by a secondary standard.

Turbidity – combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source in Drinking Water
1) Highest single turbidity measurement	0.3 NTU	0.05	No	Soil Runoff
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff
Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly.				NTU = nephelometric turbidity units

2019 Trabuco Canyon Water District Trabuco Creek Wells Facility

Constituent	MCL	PHG	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Chemical
Inorganic Constituents							
Fluoride (ppm)	2	1	0.18	0.18	No	2019	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	1.28	1.28	No	2019	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	1.28	1.28	No	2019	Fertilizers, Septic Tanks
Secondary Standards*							
Chloride (ppm)	500*	n/a	25.6	25.6	No	2019	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	777	777	No	2019	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	230	230	No	2019	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	589	589	No	2019	Erosion of Natural Deposits
Unregulated Constituents							
Bicarbonate (ppm)	Not Regulated	n/a	144	144	n/a	2019	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	107	107	n/a	2019	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	24.3	24.3	n/a	2019	Erosion of Natural Deposits
pH (pH units)	Not Regulated	n/a	6.9	6.9	n/a	2019	Erosion of Natural Deposits
Potassium (ppm)	Not Regulated	n/a	1.4	1.4	n/a	2019	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	29.5	29.5	n/a	2019	Erosion of Natural Deposits
Total Alkalinity (ppm as CaCO ₃)	Not Regulated	n/a	144	144	n/a	2019	Erosion of Natural Deposits
Total Hardness (ppm as CaCO ₃)	Not Regulated	n/a	200	200	n/a	2019	Erosion of Natural Deposits
Total Hardness (grains per gallon)	Not Regulated	n/a	11.8	11.8	n/a	2019	Erosion of Natural Deposits

ppb = parts-per-billion; ppm = parts-per-million; NTU = nephelometric turbidity units; ND = not detected; n/a = not applicable; µmho/cm = micromho per centimeter
< = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; PHG = California Public Health Goal

*Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Turbidity – combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Most Recent Sampling Date	Typical Source in Drinking Water
1) Highest single turbidity measurement	5 NTU	0.39	No	2019	Soil Run-off
2) Percentage of samples less than 0.2 NTU	95%	100%	No	2019	Soil Run-off

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. NTU = nephelometric turbidity units
Low turbidity in Trabuco Canyon Water District's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT).
A treatment technique is a required process intended to reduce the level of constituents in drinking water that are difficult and sometimes impossible to measure directly.

What are Water Quality Standards?

Drinking water standards established by USEPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The chart in this report shows the following types of water quality standards:

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Secondary MCLs:** Set to protect the odor, taste, and appearance of drinking water.
- **Primary Drinking Water Standard:** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.
- **Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

How are Contaminants Measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

- parts per million (ppm) or milligrams per liter (mg/L)
- parts per billion (ppb) or micrograms per liter (µg/L)
- parts per trillion (ppt) or nanograms per liter (ng/L)

What is a Water Quality Goal?

In addition to mandatory water quality standards, USEPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The chart in this report includes three types of water quality goals:

- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by USEPA.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

2019 Trabuco Canyon Water District Dimension Water Treatment Plant							
Constituent	MCL	PHG, or (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source in Drinking Water
Radiologicals							
Alpha Radiation (pCi/L)	15	(0)	3.1	3.1	No	2017	Erosion of Natural Deposits
Uranium (pCi/L)	20	0.43	3.5	3.5	No	2017	Erosion of Natural Deposits
Inorganic Constituents							
Aluminum (ppm)	1	0.6	0.114	0.050 – 0.234	No	2019	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.102	0.102	No	2019	Erosion of Natural Deposits
Fluoride (ppm) naturally-occurring	2	1	0.294	0.294	No	2019	Erosion of Natural Deposits
Secondary Standards*							
Aluminum (ppb)	200*	600	114	50 – 234	No	2019	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	97.1	97.1	No	2019	Leaching from Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	912	912	No	2019	Ions in Water
Sulfate (ppm)	500*	n/a	229	229	No	2019	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	581	581	No	2019	Runoff or Leaching from Natural Deposits
Unregulated Constituents							
Calcium (ppm)	Not Regulated	n/a	62.6	62.6	n/a	2019	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	25.5	25.5	n/a	2019	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	7.46	7.46	n/a	2019	Hydrogen Ion Concentrations
Potassium (ppm)	Not Regulated	n/a	4.74	4.74	n/a	2019	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	82.8	82.8	n/a	2019	Runoff or Leaching from Natural Deposits
Total Alkalinity (ppm as CaCO ₃)	Not Regulated	n/a	99	99	n/a	2019	Runoff or Leaching from Natural Deposits
Total Hardness (ppm as CaCO ₃)	Not Regulated	n/a	247	247	n/a	2019	Runoff or Leaching from Natural Deposits
Total Hardness (grains/gal)	Not Regulated	n/a	14.5	14.5	n/a	2019	Runoff or Leaching from Natural Deposits

ppb = parts-per-billion; **ppm** = parts-per-million; **pCi/L** = picoCuries per liter; **NTU** = nephelometric turbidity units; **ND** = not detected; **n/a** = not applicable;
< = average is less than the detection limit for reporting purposes; **MCL** = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal
*Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Turbidity – combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Most Recent Sampling Date	Typical Source in Drinking Water
1) Highest single turbidity measurement	1 NTU	0.49	No	2019	Soil Run-off
2) Percentage of samples less than 0.2 NTU	95%	100%	No	2019	Soil Run-off
Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. NTU = nephelometric turbidity units Low turbidity in Trabuco Canyon Water District's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of constituents in drinking water that are difficult and sometimes impossible to measure directly.					

2019 Irvine Ranch Water District Baker Water Treatment Plant						
Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Chemical
Radiologicals – Tested in 2019						
Alpha Radiation (pCi/L)	15	(0)	<3	ND – 3.26	No	Erosion of Natural Deposits
Uranium (pCi/L)	20	0.43	1	ND – 2.1	No	Erosion of Natural Deposits
Inorganic Chemicals – Tested in 2017 – 2019						
Barium (ppm)	1	2	<0.1	ND – 0.114	No	Refinery Discharge, Erosion of Natural Deposits
Chlorine Dioxide (ppb)	MRDL = 800	MRDLG = 800	<20	ND – 280	No	Drinking Water Disinfectant Added for Treatment
Chlorite (ppm)	1.0	0.05	0.13	ND – 0.5	No	Byproduct of Drinking Water Chlorination
Fluoride (ppm)	2.0	1	0.28	0.25 – 0.31	No	Erosion of Natural Deposits; Water Additive for Dental Health
Secondary Standards* – Tested in 2019						
Chloride (ppm)	500*	n/a	72.7	44.4 – 101	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	5	ND – 10	No	Naturally-occurring Organic Materials
Foaming Agents (MBAS) (ppb)	500*	n/a	<0.05	ND – 0.055	No	Municipal and Industrial Waste Discharges
Manganese (ppb)	50*	n/a	<20	ND – 26.2	No	Leaching from Natural Deposits
Odor (threshold odor number)	3*	n/a	2	ND – 4	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	878	789 – 968	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	215	205 – 225	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	568	530 – 606	No	Runoff or Leaching from Natural Deposits
Turbidity (NTU)	5*	n/a	0.1	0.1	No	Soil Runoff
Unregulated Chemicals – Tested in 2019						
Alkalinity, total as CaCO ₃ (ppm)	Not Regulated	n/a	138	122 – 155	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.111	0.105 – 0.117	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	74.2	68.4 – 80.1	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO ₃ (ppm)	Not Regulated	n/a	299	275 – 323	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gallon)	Not Regulated	n/a	18	16 – 19	n/a	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	27.6	25.4 – 29.9	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.1	7.7 – 8.5	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	3.7	3.1 – 4.4	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	68.2	44.5 – 91.9	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	3.7	2.8 – 4.6	n/a	Various Natural and Man-made Sources

ppb = parts per billion; **ppm** = parts per million; **pCi/L** = picoCuries per liter; **µmho/cm** = micromhos per centimeter; **ND** = not detected; **NTU** = nephelometric turbidity units;
MCL = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal;
PHG = California Public Health Goal; **NL** = Notification Level; **n/a** = not applicable; **TT** = treatment technique
*Chemical is regulated by a secondary standard.

Turbidity – combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Chemical
Irvine Ranch Water District Baker Water Treatment Plant				
1) Highest single turbidity measurement	0.1 NTU	0.034	No	Soil Runoff
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil Runoff
Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. NTU = nephelometric turbidity units Low turbidity in the treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly.				

2019 Trabuco Canyon Water District Distribution System Water Quality					
Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source in Drinking Water
Total Trihalomethanes (ppb)	80	57	21 – 74	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	16	5.3 – 20	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1.07	0.42 – 1.9	No	Disinfectant added for treatment
Aesthetic Quality					
Color (color units)	15*	<1	ND – 3	No	Erosion of natural deposits
Turbidity (NTU)	5*	<0.1	ND – 0.42	No	Erosion of natural deposits
Four locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids – per State Water Resources Control Board Guidelines, average amount shall be reported as the highest of the locational running annual average values for the year; sixteen locations are tested monthly for color, odor and turbidity (odor was not detected in 2019). MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal *Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).					

Lead and Copper Action Levels at Residential Taps					
Action Level (AL)	Public Health Goal	90 th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source in Drinking Water
Lead (ppb)	0.2	ND	0/35	No	Corrosion of household plumbing
Copper (ppm)	0.3	0.1	0/35	No	Corrosion of household plumbing

Every three years, at least 30 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2018.
Lead was not detected in any sample. Copper was detected in 7 samples; none exceeded the regulatory action level.
A regulatory action level is the concentration of a constituent, if exceeded triggers treatment or other requirements that a water system must follow.
In 2019, no school submitted a request to be sampled for lead.

About Lead in Tap Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. TCWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in a home's plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at: www.epa.gov/safewater/lead.

Source Water Assessments

Imported Water Assessment

Every five years, water purveyors are required by DDW to examine possible sources of drinking water contamination in its water sources.

The watershed sanitary surveys for MWDSC's Colorado River supply was most recently updated in 2015 and the watershed sanitary survey for the State Water Project supply was updated in 2016. The IRWD watershed sanitary survey for Santiago Reservoir (Irvine Lake) was updated in 2019.

Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/storm-water runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater. Water supplies from the Santiago Reservoir are most vulnerable to contamination from septic systems and wildfires.

USEPA also requires water purveyors to complete one Source Water Assessment (SWA) that utilizes information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The most recent SWA for Santiago Reservoir was completed in 2001. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed.

A copy of the most recent summary of the Watershed Sanitary Surveys or the Source Water Assessments can be found on the TCWD website at www.tcwd.ca.gov or by calling the District at (949) 858-0277.

Groundwater Assessment

An assessment of the drinking water sources for TCWD was completed in 2011. The water sources are considered most vulnerable to contaminants associated with historic gas stations, septic systems, agricultural/ irrigation wells, above and below ground storage tanks and mining activities. There have been no contaminants detected in TCWD'S water associated with these activities. The only detections of contaminants are associated with naturally occurring salts, naturally occurring radiochemicals, and low-level organics. A copy of the complete assessment may be viewed at TCWD. You may request that a summary of the assessment be sent to you by contacting the District Secretary at (949) 858-0277.

Your Water: Always Available, Always Assured

THE DIEMER WATER TREATMENT PLANT, located in the hills above Yorba Linda, processes up to 520 million gallons of clean water per day — enough to fill the Rose Bowl every 4 hours. The water is a blend from both the Colorado River Aqueduct and the State Water Project. At 212-acres, it's one of the largest water treatment plants in the U.S. It provides nearly half of Orange County's total water supply.

Water flowing from Diemer meets — or exceeds — all state and federal regulations. And it is kept safe from the treatment plant to your tap by constant testing throughout the distribution network. The Trabuco Canyon Water District monitors the water quality at all sources, reservoirs, and various points on the distribution system. This constant surveillance ensures your drinking water stays within the requirements mandated by the federal Safe Drinking Water Act.



Trabuco Canyon Water District

32003 Dove Canyon Drive
Trabuco Canyon, California 92679

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This report contains important information about your drinking water.
Translate it, or speak with someone who understands it.

*Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.*